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7590 CROMPTON CORPORATION Benson Road Middlebury, CT 06749			EXAMINER GOLOBOY, JAMES C	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MICHAEL T. COSTELLO, IGOR RIFF,  
and JOSEPH A. WEAVER JR.

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Appeal 2008-004534  
Application 10/731,600  
Technology Center 1700

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Decided:<sup>1</sup> June 08, 2009

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Before CHARLES F. WARREN, CATHERINE Q. TIMM, and  
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision finally rejecting claims 12-18, the only claims pending in the application. (Appeal Brief ("App. Br."), filed Oct. 31, 2007, 6.) We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

#### STATEMENT OF THE CASE

Claim 12, the sole independent claim, is illustrative of the subject matter on appeal, and is reproduced from the Claims Appendix to the Appeal Brief:

12. A lubricant composition comprising:

a) a lubricant oil stock

b) an amorphous overbased alkaline earth metal sulfonate in an amount sufficient to provide a sedimentation rate of no more than about 0.005% per week at 70°C for at least 12 weeks; and,

c) at least one friction modifier selected from the group consisting of a polyalkylene succinic anhydride, an overbased alkaline earth carboxylate, the reaction product of an alkanoamine with a fatty acid or a fatty ester, the reaction product of thiodiglycol with a fatty acid or a fatty ester and the reaction product of a dialkylene glycol with a fatty acid or a fatty ester.

The Examiner relies on the following evidence to establish unpatentability (Examiner's Answer ("Ans."), mailed Dec. 27, 2007, 3):

Calhoun	3,198,737	Aug. 03, 1965
Papke	4,995,993	Feb. 26, 1991
Papay	5,652,201	Jul. 29, 1997
Hartley	2004/0180798 A1	Sep. 16, 2004

Appellants request review of the following grounds of rejection (App. Br. 7-8):

1. claims 12-18 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement;
2. claims 12-15 under 35 U.S.C. § 103(a) as unpatentable over Papay in view of Papke;
3. claim 16 under 35 U.S.C. § 103(a) as unpatentable over Papay in view of Papke as applied to claims 12-15, and further in view of Hartley; and
4. claims 17-18 under 35 U.S.C. § 103(a) as unpatentable over Papay in view of Papke as applied to claims 12-15, and further in view of Calhoun.

*Rejection of claims 12-18 under  
35 U.S.C. § 112, first paragraph*

ISSUES

The Examiner maintains that claim 12 is not supported by the originally filed Specification because the claimed sedimentation rate of “no more than about 0.005% per week” encompasses a broader range than supported by the Specification, which “places a lower bound of about 0.001% per week on the sedimentation rate.” (Ans. 3.) The Examiner also contends that there is no support for an infinite time period extending beyond the claimed “at least 12 weeks.” (Ans. 3-4.)

In response, Appellants identify several examples in the Specification in which sedimentation rates ranging from 0 to 0.005% were measured each week over a 12 week time period. (Rep. Br. 2 (citing Exs. 6 and 23-27)). Appellants maintain that one of ordinary skill in the art would understand from the test data in the Specification that a desirably low sedimentation rate

would be expected to continue beyond the exemplified 12 week test period.  
(Rep. Br. 3.)

Therefore, the first issue we consider is whether Appellants have shown reversible error in the Examiner's finding that the claim phrases "a sedimentation rate of no more than about 0.005% per week" and "at least 12 weeks" do not comply with the written description requirement of the first paragraph of § 112.

The Examiner also contends that claim 12 is not supported by the originally filed Specification because there is no evidence of a sedimentation rate of less than 0.005% per week for a composition containing an amorphous overbased calcium sulfonate other than C-400CLR and at a concentration other than 10%. (Ans. 4.) Appellants argue that the use of other sulfonates and adjustments in the concentrations used to achieve a sedimentation rate within the claimed range would have been within the skill of the ordinary artisan. (Rep. Br. 4.)

We thus consider, as a second issue, whether Appellants have shown reversible error in the Examiner's finding that the claim phrase "an amorphous overbased alkaline earth metal sulfonate in an amount sufficient" does not comply with the written description requirement of the first paragraph of § 112.

For the reasons explained below, we decide both issues in favor of Appellants.

#### FINDINGS OF FACT

The invention is directed to "[a]n additive mixture for lubricant oils" (Spec. 1:25) such as those used in engines for motorized vehicles (Spec. 1:8-9) which is said to provide "a lubricant oil composition having improved

lubricity and exhibit[ing] less sedimentation” (Spec. 2:4-5). According to the Specification, formation of sediment is a problem which occurs during aging of a lubricant oil, i.e., during storage. (Spec. 1:15-18.)

The additive mixture of the invention includes a detergent compound and a friction modifier. (Spec. 1:25-26.) The detergent compound of appealed claim 12 is “an amorphous overbased alkaline earth metal sulfonate in an amount sufficient to provide a sedimentation rate of no more than about 0.005% per week at 70°C for at least 12 weeks.” The Specification states that “[o]verbased alkaline earth sulfonates are detergent compounds prepared by neutralizing a sulfonic acid with an excess of alkaline earth metal base (e.g., the hydroxides of magnesium, calcium or barium) so as to produce an overbased alkaline earth metal sulfonate with a total base number (‘TBN’) of greater than zero.” (Spec. 3:7-10.) “The preferred overbased alkaline earth metal sulfonate is overbased calcium sulfonate having a TBN of above about 250,” (Spec. 3:14-15), e.g., C-400CLR (Spec. 3:19-21). According to the inventors, the reduced sedimentation achieved using amorphous overbased calcium sulfonate is likely due to its smaller particle size (Spec. 7:20-21), which is “less than about 30 nm” (Spec. 3:21-22).

The Specification does not provide a range for, or otherwise define the claim 12 phrase “an amount sufficient.” In the Specification, experimental testing of additive mixtures within the scope of claim 12 is limited to compositions containing 10% C-400CLR as the amorphous overbased calcium sulfonate. (Spec. 7:6-9.) In several experiments using compositions within the scope of claim 12 (e.g., Exs. 6 and 23-27), a sedimentation rate of 0 was measured each week for a period of 2-5 weeks, followed by weekly

measurements of 0.001, 0.002 or 0.005% during the remaining portion of the 12 week period. (*See* Spec. 9 & 13, Tables 1 and 3.)

#### PRINCIPLES OF LAW

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language.

*In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983). In establishing a basis for finding lack of support under 35 U.S.C. § 112, first paragraph, the Examiner has the initial burden of presenting evidence of reasons why persons skilled in the art would not recognize in the earlier disclosure a description of the invention defined by the claims. *In re Wertheim*, 541 F.2d 257, 263 (CCPA 1976).

When the original written description describes something within the scope of the claim, the Examiner must do more than point out that a claim is broader than a specific embodiment disclosed in the specification. *See In re Rasmussen*, 650 F.2d 1212, 1215 (CCPA 1981). The Examiner must provide some analysis that either: (1) considers factors such as the knowledge of one skilled in the art and the level of predictability in the field, *Bilstad v. Wakalopulos*, 386 F.3d 1116, 1125-26 (Fed. Cir. 2004), or (2) demonstrates that the specification distinguishes the prior art as inferior and touts the advantages of the specifically described embodiment. *Tronzo v. Biomet*, 156 F.3d 1154, 1159 (Fed. Cir. 1998) (claims not limited to conical cup implants found unsupported because specification distinguished prior art shapes as inferior and touted the advantage of the conical shape).

## ANALYSIS

Appellants have persuasively shown that the claim phrase “a sedimentation rate of no more than about 0.005% per week” is supported by Examples in the Specification in which measured sedimentation rates range from 0 to 0.005% over a 12 week time period. *Cf. In re Wertheim*, 541 F.2d at 265 (holding that a later claimed range of “35-60%” did not violate the written description requirement where the originally filed application disclosed a broader range of “25%-60%,” along with two examples showing 36% and 50%, respectively). We also agree that the Examiner erred in rejecting the claims on the basis that the Specification does not support an infinite time period extending beyond the claimed “at least 12 weeks.” A lubricant composition of the type claimed by Appellants has a limited useful life. Sedimentation also appears to occur over a limited time frame, i.e., during storage. The ordinary artisan would understand that the low sedimentation rate would be expected to continue for the limited period of time during which the composition is stored and/or used, not for an “infinite” period of time. The Examiner erred in failing to take into account factors such as the knowledge of one skilled in the art and the level of predictability in the field. *See Bilstad*, 386 F.3d at 1125-26; *cf. In re Howarth*, 654 F.2d 103, 105 (CCPA 1981) (“An inventor need not . . . explain every detail [of the invention] since he is speaking to those skilled in the art. What is conventional knowledge will be read into the disclosure.”).



With respect to the claim 12 phrase “an amount sufficient,” the Examiner has simply not met the burden to establish non-compliance with the § 112 written description requirement. *See* case law discussed *supra* p. 6. As pointed out by Appellants, the original Specification describes something within the scope of claim 12, i.e., examples using an amount of amorphous overbased calcium sulfonate which provides the claimed sedimentation rate. The Examiner, however, has done nothing more than point out that claim 12 is broader in scope than a specific embodiment in the Specification. *See In re Rasmussen*, 650 F.2d at 1215.

Therefore, we do not sustain the rejection of claims 12-18 under 35 U.S.C. § 112, first paragraph.

*Rejections of claims 12-18  
under 35 U.S.C. § 103(a)*

ISSUE

The sole issue presented for our review with respect to all three grounds of rejection under 35 U.S.C. § 103(a) is: Have Appellants shown reversible error in the Examiner’s determination that it would have been obvious to have used Papke’s amorphous overbased calcium sulfonate as the metal detergent in Papay’s lubricant composition to achieve the claimed composition?

We answer this question in the negative.

FINDINGS OF FACT

The Examiner finds that Papay discloses a lubricant composition as claimed in claim 12, with the exception of an express teaching that the overbased calcium sulfonate detergent (Papay, col. 13, ll. 42-47) is amorphous. (Ans. 6, 1<sup>st</sup> para.) The Examiner specifically finds that Papay

discloses an embodiment in which the detergent component is present in an amount of .01-10%, which overlaps Appellants' preferred 10% concentration (*see* App. Br. 10, 2<sup>nd</sup> para.). (Ans. 5 (citing Papay, col. 50, ll. 12-15).) The Examiner finds that Papke discloses a method of producing an amorphous overbased calcium sulfonate having a TBN and particle size consistent with that of Appellants' preferred detergent, C-400CLR. (Ans. 6 (citing Papke, col. 4, ll. 56-59).)

Appellants do not dispute these findings. (*See* Rep. Br. 4-6.) Nor do Appellants dispute the Examiner's proposed motivation for combining the references (*see* Ans. 6 (noting Papke's teaching, col. 1, ll. 36-47, that "crystalline products can be unacceptably hazy and unstable")). (*See* Rep. Br. 4-6.)

Appellants rely on the Specification Examples as evidence of unexpected results. (*See* Rep. Br. 5; Ans. 10.) In the Examples, testing was conducted on compositions in which the amorphous overbased alkaline earth metal sulfonate component was not varied, i.e., the Examples used C-400CLR at a 10% concentration. (*Id.*)

#### PRINCIPLES OF LAW

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 415-16 (2007). "The test for obviousness is not . . . that the claimed invention must be expressly suggested in any one or all of the references." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). "[O]bjective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support." *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971).

### ANALYSIS

We have fully considered Appellants' arguments and evidence in support of nonobviousness. However, we find that a preponderance of the evidence weighs in favor of the Examiner's conclusion of obviousness for the reasons well-stated in the Answer.

Appellants argue that neither Papay (*see* Rep. Br. 4-6) nor Papke (*see* App. Br. 11), individually, discloses the claimed invention. However, Appellants have not addressed the Examiner's rationale for rejecting the claims, which is based on the combined teachings of the references. (*See supra* p. 9 citations to Rep. Br.) We are also in agreement with the Examiner's assessment of Appellants' evidence as not commensurate in scope with the claimed invention and, therefore, not persuasive of unexpected results. (*See* Ans. 10.) We additionally note that Appellants' tests are limited to a single amorphous overbased *calcium* sulfonate, although claim 12 is directed to "an amorphous overbased *alkaline earth metal* sulfonate" (emphasis added) which encompasses other metal sulfonates, such as magnesium and barium sulfonates. (*See supra* p. 5 quoting Spec. 3:7-10.)

Appellants' arguments are limited to features recited in independent claim 12. Appellants do not advance any new arguments in connection with the separate rejections of dependent claim 16 and dependent claims 17-18. Accordingly, we sustain all three grounds of rejection under 35 U.S.C. § 103(a).

### CONCLUSION

Appellants have identified reversible error in the Examiner's rejection of claims 12-18 under 35 U.S.C. § 112, first paragraph, but have not

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identified reversible error in the Examiner's obviousness determination. The decision of the Examiner rejecting claims 12-18 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED

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